

# Ohio River Valley Ecosystem

## *Fiscal Year 1999 Annual Report Region 3*

*Jason Lewis and Teresa Vanosdol-Lewis, both SCEP students at Muscatatuck NWR, record measurement data while banding young Henslow's sparrows at Jefferson Proving Ground in southern Indiana.*

-USFWS Photo by Ron Austing



### Ecosystem Description

The Ohio river begins at the confluence of the Monongahela and Allegheny rivers in Pennsylvania and runs through the heart of industrial middle America. The Ohio River forms the borders between West Virginia and Ohio, Ohio and Kentucky, and Kentucky and Indiana; it meanders nearly 1,000 miles before emptying into the Mississippi River at Cairo, Illinois. The watershed it drains is 141,000 square miles and encompasses portions of 10 states. The eastern end is rugged and heavily forested; to the north lie rich agricultural lands, while in the southwest, rolling terrain, limestone and karst topography dominate. The river, its watershed, its natural resources and its people comprise the Ohio River Valley Ecosystem.

The Ohio River Valley Ecosystem supports a great diversity of natural life including some species with northern affinities and other with southern affinities, in addition to those common to the central region of the country. A number of rare and endangered species are found in the Ohio River Valley. Of particular interest to the team are those associated with aquatic habitats, such as freshwater mussels.



*Visitors watch a pair of river otters head for Otter Creek after being released on Muscatatuck NWR by the Indiana Department of Natural Resources. The otters were released as part of the state's otter reintroduction efforts*  
*-USFWS Photo*

The Ohio River, with its history as a travel route west, is understandably a waterway that has seen huge changes over the decades. The Ohio River supports a variety of economic activities, most of them associated with the area's natural resources - coal mining, timber production, agriculture, shipping, hydro-electric power, and recreation. These activities, which support the human population, make managing the ecosystem's resources a particularly challenging endeavor.

The steady growth in population means expanding urban and residential areas and shrinking expanses of habitat available for fish and wildlife. Mining activities can result in acid mine drainage, which can drastically change water chemistry and have devastating impacts on aquatic life. Poor land use practices, including those that generate erosion and sedimentation, are common in the ecosystem, while the invasion of non-native species, such as purple loosestrife and zebra mussels, is affecting the health of native plant and animal populations.

Restoring and enhancing fish and wildlife populations in this ecosystem seems a fairly daunting prospect. But the Ohio River Valley Ecosystem team is meeting the challenge through partnerships, teamwork, and an enthusiastic and creative approach to problem solving. U.S. Fish and Wildlife Service Regions 3, 4, and 5 contribute to the team's efforts. In addition to partnerships between Service regions and programs, the team and its numerous subgroups work with a wide variety of federal, state, tribal and local governments, non-governmental organizations and private citizens. One example of the extent to which partners are involved is the Mussel Subgroup which has more than 30 members, the majority of whom are from agencies and organizations outside of the Service. States and other partners have been critical in all the successes of the Team. Says Ecosystem Team Leader Debbie Mignogno. "We would not have gotten this far without their participation."

### **The Ohio River Valley Ecosystem Team (ORVET)**

The Ohio River Valley Ecosystem Team is a well developed group consisting of an executive committee that provides guidance and coordinates resources for the subgroups and the many standing and ad hoc sub-committees. The Team's seven subgroups are the primary mechanisms for conducting activities on the ground. The subgroups were formed on the basis of the Team's resource priorities, i.e., fish and wildlife and associated habitats, and public use. They are, in no priority order: native aquatic mollusks; migratory land birds and other bird species of concern; native fishes; karst/cave habitat; wet-land, riverine, and riparian habitat; declining and rare species; and fish and wildlife-oriented recreational use.

The subgroups are comprised of Team members, other field office staff, and stakeholders beyond the Service who have expertise and/or share an interest in the particular resource issue. It is at the subgroup level that partners have become major collaborators in identifying and addressing the Team's resource priorities.

Law Enforcement team members made a huge contribution to the effort with a multi-state case involving illegal shipments of mussel shells. The case resulted in the Tennessee Shell Company paying \$1.1 million in restitution. The money will be put toward mussel restoration and protection in the Ohio River Valley and other areas.

The Team's Migratory Bird Subgroup has taken steps to identify birds of concern in the ecosystem and their habitat associations. Likewise, members of the Karst/Cave Habitat Sub-group are making similar efforts to collect information on the extent of cave and karst geology in the ecosystem and the status of plants and animals that depend on this sensitive habitat.

The team has also developed an "ecosystem kitty" which is used to fund specific projects and events. One event funded by the kitty was an educational cruise along the river in which local landowners, and representatives from the U.S. Army Corps of Engineers and the Natural Resources Conservation Service were brought together to discuss the value of riparian corridors. Future efforts of the Ohio River Valley Ecosystem Team include further work to monitor zebra mussels and attempts to reduce their impacts on native freshwater mussel species.

The river currently supports populations of 10 endangered native mussel species. Several national fish hatcheries in the ecosystem are playing an active role in trying to solve these problems by either holding endangered mussels to protect them from zebra mussels or experimenting with common species to refine propagation techniques.

Efforts to protect existing habitat in the ecosystem are highlighted by the prospect of two proposed national wildlife refuges: Darby Prairie in Ohio and an overlay refuge at Jefferson Proving Ground in southern Indiana. Both the ecologically important Darby Creek watershed and the unfragmented forests and grasslands at Jefferson Proving Ground offer unique opportunities to provide stewardship for prime wildlife habitat.

The Service and state partners are also working with the U.S. Army Corps of Engineers in hopes of developing a habitat restoration program for the Ohio River. Such a plan would be the basis for a comprehensive environmental management program similar to the highly successful program in place on the Upper Mississippi River.



*SCEP student Jason Lewis measures nest site characteristics for Henslow's sparrows at Jefferson Proving Grounds*

-USFWS Photo by Teresa Vanosdol-Lewis



Additional goals include close work with the U.S. Army Corps of Engineers on the Corps' Ohio River Mainstem Systems Study and identifying Ohio River Valley trust resource land protection needs.

The Ohio River Valley Ecosystem Team is continuing to build partnerships with all possible stakeholders. Education and outreach will continue to play a major role in helping the Team fulfill its goals. It is clear that with the ecosystem's huge ecological and economic diversity, no single agency or organization can address all the resource issues that require attention. It is through cooperation and partnerships that the team hopes to gain meaningful progress toward reaching their ecosystem goals.



*The Threeridge mussel, (Amblima plicata) is found throughout the midwest. Settlements resulting from prosecution of freshwater mussel poachers are helping fund conservation programs for mussels in the Ohio River ecosystem.*

-USFWS Photo by Scott Flaherty

## Summary of Fiscal Year 1999 Accomplishments

### Zebra Mussel Assessment and Control

The Ohio River Zebra Mussel Monitoring Group completed its fifth year of surveying. Eleven sites were monitored in 1999. Consistent declines have occurred in the density of native mussels, and species composition is changing substantially in the middle and lower parts of the Ohio River. Zebra mussels are now present throughout the entire Ohio River. Currently, ten threatened or endangered native mussel species occur in the Ohio River. The Team funded an assessment of contaminants in zebra mussels. This assessment was conducted both above and below the paper mill focusing primarily on dioxin and other organics.

A Team committee developed a full-color poster of extant and extinct mussels in the Ohio River. This poster was funded by money from the Mussel Mitigation Trust and will be ready for distribution in 2000. The Team also partially funded the development of a mussel database for the upper Ohio River using published and unpublished sources.

### Freshwater Mussel Conservation

One million dollars of legal settlement monies will be deposited with the National Fish and Wildlife Foundation over the next four years for the conservation of freshwater mussels. In 1999, \$150,000 was available to fund research. The Team's Mollusk Subgroup was asked to help the Foundation and Assistant Regional Director of Law Enforcement in Region 4 in developing a granting process and in the advertisement, receipt, and ranking of proposals submitted. Through the subgroup, a committee was formed to develop guidelines and review proposals. The committee received 60 proposals this year.

A \$15,000 proposal by the U.S. Geological Survey-Biological Research Division (USGS-BRD) to examine crystal darter genetics and morphometrics was funded as a priority of the Service's Region 3 under the Quick Response Research Project Program. The USGS-BRD is assessing the population and distribution of the crystal darter, presently known to be extant in only a short reach of the Elk River in West Virginia.

### Trust Fishes

During the summer and fall of 1999, Carterville Fishery Resources Office conducted sturgeon sampling on the Ohio River between Smithland Locks and Dam and the confluence with the Mississippi River. Several hundred sturgeon were collected; all but one individual were shovelnose sturgeon. One pallid sturgeon and a shovelnose sturgeon hybrid was collected, suggesting the possibility that pallid sturgeon may reside in the Ohio River. Observations indicate deep areas with strong currents are the

best sturgeon habitat. The project was partially funded as an off-refuge Service Challenge Cost Share Project.

The sub-group prepared a Fish Passage Proposal and submitted it in competition for funding through Region 4 under the U.S. Fish and Wildlife Service Fish Passage Initiative. It was not selected for funding; however, Region 4 will be including it in the Region 4 Fishery Operation and Needs System (FONS).

## Cave and Karst Habitats

Members of the Cave/Karst Subgroup assisted in re-gating two caves, Sinnitt/Thorn and Schoolhouse, to prevent predation and human disturbance to large summer and winter colonies of the endangered Virginia big-eared bat, *Corynorhinus townsendii virginianus*. With the help of the West Virginia Division of Natural Resources and the Canaan Valley National Wildlife Refuge construction steel has been placed at the cave entrances. The Sinnitt/Thorn Cave gate project was completed through a workshop put on by the American Cave Conservation Association and funded by the Asheville, North Carolina Field Office and the Southern Appalachian Ecosystem. The Pennsylvania Field Office assisted the Chesapeake Bay/Susquehanna Ecosystem by funding the remainder of the amount necessary to purchase steel for the Schoolhouse Cave project. The gate at Schoolhouse Cave, which is presently the largest in the world, will permanently protect a large summer and winter colony of the Virginia big-eared bat from human disturbance. A small number of Indiana bats, *Myotis sodalis* and two species of concern, the Eastern woodrat and the small-footed bat will also be protected by the gate.

## Outreach

The Team completed several outreach projects during the past year. First, a sign was designed describing techniques for boaters to avoid inadvertently spreading zebra mussels. Several hundred of these signs were distributed to the various state fishery agencies for posting at boat ramps. Second, an educational cruise was sponsored for approximately 70 individuals. The participants were landowners and agency representatives from the Corps of Engineers and Natural Resources Conservation Service. The purpose of this effort was to demonstrate and discuss the value of riparian corridors along the Ohio River mainstem and the Muskingum River. Third, the Team provided funds to the Asheville Field Office for development of 12 aquatic education trunks and teacher's manuals. These materials target grades 3 through 12 and have received a large amount of interest.

The ORVET sponsored an Ohio River Symposium at the December, 1998 Midwest Fish and Wildlife Conference. The Symposium was well attended, with 15 presentations on Ohio River activi-

ties. A video of the Director and a presentation by Assistant Director Gerry Jackson kicked off the symposium. The follow-up ORVE Team meeting had more than 50 in attendance.

**Land Protection** The Team established a new resource priority and associated subgroup in 1999, centering around land protection needs. This resource priority states that the Team will achieve protection for high-priority geographic areas in the Ecosystem. Five action strategies were finalized that will guide the Subgroup's future activities. These strategies include consolidating existing land-protection strategies into a comprehensive strategy for the ecosystem, assisting in the development of Geographic Information System database layers, and developing land-protection criteria for prioritizing Service land-protection needs. The Subgroup intends to focus on all land-protection strategies, not just land acquisition.

**Migratory Birds** A GIS was completed to identify areas where conservation activities will be focused for migratory birds. Layers within the system include Partners in Flight physiographic regions, Breeding Bird Survey routes, managed areas, streams, and habitat types. This data will be available to the public in the near future via the Internet or CD. A second Team activity in this priority area was funding of a two-year study on mine-reclaimed grasslands and migratory birds. Past evidence has suggested that grasslands birds occur on mine-reclaimed lands, but it was unknown if these areas were sources or sinks. Preliminary results from the first year of the study indicated that mine-reclaimed habitat may be worth protecting and enhancing for grassland birds. Of the 480 nests located in the study area, 184 nests fledged.

**Law Enforcement** In June 1999, a fish kill occurred in the Ohio River between two refuge islands. The kill affected primarily freshwater drum, zebra mussels, and native mussels. During the first week of October another larger kill occurred at the same location. The Team response to this kill was a good example of ecosystem management at work. Biologists collected samples for analysis, and law enforcement agents from the Team coordinated efforts to determine the cause. Potential culprits responsible for the kill are a nearby power plant and metal finishing plant. This case highlights the importance of Law Enforcement in the Team's efforts.

The ORVET established a Law Enforcement Standing Committee to assist in meeting the objectives of the Resource Priorities.

**Geographic Information** The Team partially funded a Geographic Information System (GIS) computer specialist position (Kurt Snider) and a GIS computer technician position (Debbie Harris) to support ecosystem GIS needs. Both positions are located in the Cookeville Field Office, the GIS center for the ORVET.

Region 3 Federal Aid provided \$10,000 to the states to participate with the ORVET in a GIS training session. Representatives from each of the six states, the Corps of Engineers, and Service field and regional offices attended the training. The Corps of Engineers provided training facilities at the Louisville, Kentucky District Office and NCTC provided two trainers to work with Jason Duke, Cookeville Field Office, to teach the week-long course.



*Not quite a week old, this young Henslow's sparrow was banded by Service SCEP students this summer at Jefferson Proving Ground.*

-USFWS Photo by Teresa Vanosdol-Lewis



## Goals for Fiscal Year 2000



*A miniature radio transmitter is  
afixed to the back of a lactating  
female Indiana bat.*

-USFWS Photo by Teresa Vanosdol-Lewis

The Fisheries Subgroup will continue to evaluate the status of the crystal darter in Fiscal Year 2000. The only known population of this species occurs in an approximately 20-mile reach of the Elk River in West Virginia. This Subgroup will also conduct winter surveys for the pallid sturgeon in areas where this species has been reported. In addition, gaps in MICRA sampling will be identified. In particular, efforts will be concentrated on a sampling gap in the lower Ohio River that may be an important migration area for the paddlefish.

The Mollusk Subgroup will conduct the sixth year of zebra mussel monitoring in the Ohio River. They will also proceed with the distribution of the poster of native freshwater mussels. The Team is also working in conjunction with Virginia Technological University to propagate juvenile mussels. The intention is to rear juveniles at Virginia Tech and grow them at White Sulphur Springs Hatchery. A surrogate species is being used initially instead of an endangered species to test the techniques.

The development of a GIS for the Team is ongoing. Data are being collected throughout the ecosystem. All base data will be inputted in Fiscal Year 2000. Data layers that are included in the GIS are county boundaries, major water bodies, streams, urban areas, interstate highways, census information, hex plots, national wetlands inventory sites, digital raster graphics, digital elevation models, and land uses. The Team's Subgroups will be ranking their GIS needs, and a draft document of GIS priorities will be developed.

The Cave/Karst Subgroup will continue to locate and determine the aerial extent (square miles) of caves within the ecosystem. In addition, their work surveying the species within these caves will proceed.

Members of the Migratory Bird Subgroup will conduct the second year of a two-year study to determine the use of mine-reclaimed grasslands by grassland birds. In addition, this Subgroup will work to ensure that the GIS for Migratory Birds in the Ecosystem is available through the Internet or a CD.

The Endangered Species Subgroup is in the process of gathering endangered species information by county for all counties in the Ohio River Valley Ecosystem. One of the Subgroup's objectives for Fiscal Year 2000 is to make this data available on the Team's web site. In this way, all interested parties can directly access the data. The Subgroup will also be obtaining gap analysis data during the next year to identify hot-spots for listed and other rare species.

## Fiscal Year 1999 Accomplishments

### **Service Asks For Re-evaluation of PL 566 Project Over Habitat Concerns**

#### *Reynoldsburg Field Office*

The Preble County, Ohio, Soil and Water Conservation District applied for a Section 404 permit to construct 13 earthen dams across unnamed tributaries of Four Mile Creek as part of the Four Mile Creek Watershed PL 566 Project. On October 1, 1999, representatives of the State resource agencies and the Service met with the applicant to review the project sites. The Service had several concerns regarding the proposal: whether implementation of the impoundments would provide water quality benefits, impacts to woody riparian habitat, including Indiana bat habitat, and the lack of mitigation for losses of stream habitat. We expressed these concerns in a letter to the U.S. Army Corps of Engineers and asked for a re-evaluation of the project benefits and mitigation of stream (including riparian corridor) and wetland losses. 10/1/98

### **Electrofishing Used to Sample Fish on Metzger Marsh**

#### *Ottawa National Wildlife Refuge*

Electrofishing was used to sample fish populations in Metzger Marsh on Ottawa NWR October 1, 1998. In addition to Refuge staff, members of the Ohio Department of Wildlife (ODOW) participated

in the effort, supplying electrofishing gear and manpower. The objective of the sampling was to view the fish community before the fish baskets are in operation and the gates are opened to Lake Erie in the spring. Approximately 496 fish, consisting of 17 species were collected. Most abundant were large-mouth bass with 139 collected. All fish sampled were measured and marked by fin clipping. 10/1/98

### **Open House for Landowners Within Refuge Boundary**

#### *Cypress Creek National Wildlife Refuge*

Staff from Cypress Creek NWR and the Realty office hosted an information meeting for individuals that own land within the Refuge boundary. The intent of the meeting was to provide an overview of the Realty Program and answer questions associated with the land acquisition. Twenty-five individuals attended the meeting. Questions arose regarding appraised values, condemnation, and move compensation. 10/27/98

### **Cypress Creek NWR Partners with Illinois EcoWatch**

#### *Cypress Creek National Wildlife Refuge*

Cypress Creek NWR has been working with the Illinois EcoWatch since 1995 through the RiverWatch monitoring Program. The partnership helps protect and restore native habitat; protect and improve the condition and functional integrity of the Cache River Ecosystem; and

encourage participation by volunteer citizens and scientists in monitoring the health of the Cache River its associated wetlands and forests. The partners publicize EcoWatch events on the Worldwide Web (<http://dnr.state.il.us/ecowatch/partner>); involves volunteers in monitoring along the Cache; and share long-term monitoring data. Output: The Refuge and Joint Venture Partners have become Partners with the Illinois EcoWatch Network. The Refuge has been working with EcoWatch since 1995 and has 20 volunteers dedicated to collecting resource data for this long-term monitoring project. 11/2/98

### **Refuge Begins Southern Illinois University Involvement With Reforestation**

#### *Cypress Creek National Wildlife Refuge*

Staff from Cypress Creek NWR and the Cache River Wetlands Joint Venture met with School of Forestry staff at Southern Illinois University (SIU). In the past, SIU has shown little interest in the Cache River Wetlands and ongoing restoration work. However, five new forestry professors have demonstrated their enthusiasm to become involved with the Refuge and the reforestation effort. The meeting resulted in determining research topics/possible projects and the commitment to initiate a monitoring Program of bottomland hardwood restoration. Partners include: Illinois Department of Natural Resources, The Nature Conservancy. 11/18/98

### **Friends Receive Funds for Hogue Woods Environmental Education Site**

#### *Cypress Creek National Wildlife Refuge*

Located in the north central portion of the Refuge, this project highlights Hogue Woods, a 200 acre tract of contiguous forest. A grant from the Illinois DNR will provide the resources to develop the site as an outdoor classroom for group Programming. The site has received national recognition for its songbird populations and is a popular wildlife watching spot. Public facilities will provide access to a mature growth forest, reforested uplands, riparian and wetland habitat. The site will offer schools and visitors an interdisciplinary range of educational experiences and recreational opportunities. Partners include: Friends of the Cache River Watershed, Union County Highway Department, Illinois DNR. 11/18/98

### **Indiana Dept of Tourism Visits Muscatatuck NWR**

#### *Muscatatuck National Wildlife Refuge*

The Indiana Tourism Department visited Muscatatuck NWR with four representatives to make them aware of all the refuge has to offer. They were provided a program and question and answer session on November 20, 1998. This outreach effort will help promote Muscatatuck and the Service. Partners include: Jackson County Visitor Center. 11/20/98

### **Endicott Marsh Restoration Completed at Muscatatuck NWR**

#### *Muscatatuck National Wildlife Refuge*

Muscatatuck NWR, in Partnership with Atterbury Job Corp heavy equipment Program, completed the restoration of the 12 acre Endicott North Marsh on November 19, 1998. Atterbury Job Corp brought dozers, scrapers, pans and rollers to train students with a real project. 2,400 hours of "on the job" equipment operation was completed by the students. Partners include: Atterbury Job Corps, Natural Resources Conservation Service. 11/30/98

### **Muscatatuck Breeding Bird Survey Done**

#### *Muscatatuck National Wildlife Refuge*

Muscatatuck NWR 1998 breeding bird survey results show 83 of 100 points were successfully monitored. A total of 1,240 birds of 70 different species were present. Fourteen species of concern were observed and approximately 20 singing Henslow's sparrows were found at two separate locations on the refuge. The Henslow's sparrow is a noteworthy addition to the species list from 1997. 11/30/98

### **Refuge Promotes WRP in Muscatatuck River Basin**

#### *Muscatatuck National Wildlife Refuge*

Muscatatuck NWR continues to work off the refuge with Natural Resources Conservation Service to increase the Wetland Restoration Program

(WRP) acreage in the Muscatatuck River Basin. In November, two sites totaling 68 acres were field checked and the landowners will try and bid these lands into WRP. 12/1/98

### **Muscatatuck NWR (JPG) Staff Give Presentations**

#### *Muscatatuck National Wildlife Refuge-Jefferson Proving Ground*

The Muscatatuck NWR (JPG) staff (Joseph R. Robb, Stephen A. Miller, Teresa Vanosdol-Lewis, and Jason Lewis) presented initial results of the Service's work at Jefferson Proving Ground at the 60th Midwest Fish and Wildlife Conference. The staff gave an oral presentation "Production of Interior Forest and Grassland Birds on Jefferson Proving Ground: Are They Compatible?" and a poster "From Bombs to Birds: Lessons in Ecosystem: Management at Jefferson Proving Ground". Both presentations were well received and highlighted the importance of JPG's natural resources. 12/8/98

### **Carterville Biologist Presents Paddlefish Paper at National Scientific Forum**

*Carterville Fishery Resources Office*

Fishery Biologist Greg Conover of the Carterville Fishery Resources Office (FRO) presented a paper AMICRA National Cooperative Paddlefish Research in the Ohio River Basin at the 60th Midwest Fish & Wildlife Conference in Cincinnati, Ohio, Dec. 6-9, 1998. The presentation was part of the Ohio River Valley Ecosystem Team Symposium: "A Stewardship Through Partnership." The paper summarized the MICRA paddlefish work completed in the Ohio River Basin during the first three years of the national study. Service accomplishments received national attention through the presentation, which demonstrated Carterville FRO's leadership role in a national paddlefish research project. The presentation was also an opportunity for the Carterville FRO to facilitate the dissemination and exchange of scientific information among natural resource professionals. 12/9/98

### **Canal Gate Repair Completed at Muscatatuck NWR**

*Muscatatuck National Wildlife Refuge*

Leaking Richart Lake canal gate replaced at Muscatatuck NWR by private contractor completed Dec. 10, 1998. It is important to have this gate once again operational to enhance the wetland management of seven units totaling 700 acres of wetlands. 12/10/99

### **Muscatatuck NWR Helps Plan Protection of Binkley Cave System**

*Muscatatuck National Wildlife Refuge*

Muscatatuck NWR, in Partnership with The Nature Conservancy (TNC), held a meeting to review the final report findings of the Ohio River Valley Ecosystem Team cave/karst subgroup project on the Binkley Cave System. The report found that the 21 mile cave system, all under private lands, is the largest cave in Indiana with 74 species of fauna including 21 species of significant global rarity (eight new to science) and that this cave system is biologically significant. Meeting attendance included 10 people representing Indiana Karst Conservancy, TNC, government agencies, private industry and private individuals. The group held a brainstorming session to help plan and implement conservation efforts within this unique cave/karst area of Indiana. 12/11/98

### **Region's Biologists Focus on Ecosystem Approach at St. Louis Training Forum**

*Region 3*

Approximately 220 biologists attended "Biology and the Ecosystem Approach: Putting the Pieces Together," a training forum for all biologists in Region 3. The four-day forum was held in February in St. Louis, Mo. Forum topics included trust resource overviews, Program overviews, habitat conservation, research, monitoring and data

management, population management, adaptive resource management, and challenges facing biologists. Many biologists gave presentations, all focused on the Ecosystem Approach. Partners include: Missouri Department of Conservation, Colorado State University, Iowa State University. 2/12/99

### **Darby Technical Work Panel Reviews Draft Goal and Objectives**

*Reynoldsburg Field Office*

The second meeting of the Technical Work Panel enlisted to help the Service focus issues relating to the proposed Darby Prairie National Wildlife Refuge was held on Dec. 15. The meeting focused on one agenda item, the draft goals and objectives for the refuge. Twenty of the 30 members were in attendance. Generally, those in attendance were broadly supportive of how the Service framed the goals and objectives and in particular with consideration for agriculture. The USDA Farm Bureau representative cited their recently adopted policy relating to the refuge which reflected its opposition. However, he was objective about alternatively supporting the Service given the consideration for agriculture in the goals and objectives. Recurring issues such as drainage and eminent domain were mentioned again, but with less emphasis. Also, some minor changes were suggested by several members.

12/15/98



### **Christmas Bird Count on the Refuge**

*Cypress Creek National Wildlife Refuge*

Thirty volunteers showed up on a miserable cold and rainy day for the bird count. The day proved to be very successful in that 98 species of birds were recorded. Partners include: Illinois Department of Natural Resources, The Nature Conservancy, Audubon Society, Illinois Natural History Survey 12/21/98

### **Trumpeter Swan Migration Project**

*Muscatatuck National Wildlife Refuge*

Successful arrival of swans covered by five TV stations, including CNN, 15 newspapers (front page Cincinnati Enquirer and Indianapolis Star) and 10-15 radio stations including Statewide Network Indiana. With a short two hour notice, 100-150 very excited refuge visitors were on hand to welcome the swans to the Refuge. The project is an effort to establish a migrating flock of trumpeter swans in the interior population. Partners include: Migratory Bird Research Group, Ontario, Canada 12/23/98

### **Muscatatuck NWR (JPG) Has Deer Hunt**

*Muscatatuck National Wildlife Refuge (JPG)*

The deer population at Jefferson Proving Ground was reduced by 404 during the State and Military hunting season. Fish and Wildlife Service staff and Jefferson Proving Ground Site Management worked together

to hold the annual deer hunt. Partners include: U.S. Army Jefferson Proving Ground Site Management 12/31/98

### **Muscatatuck NWR Hosts Christmas Bird Count**

*Muscatatuck National Wildlife Refuge*

Seventeen Muscatatuck NWR birders participated in a National Audubon Society sponsored Christmas Bird Count on the refuge Jan. 1, 1999. 72 species of birds were found including two bald eagles and four trumpeter swans. Partners include: National Audubon Society, Indiana Audubon Society 1/1/99

### **Muscatatuck NWR has Successful Deer Season**

*Muscatatuck National Wildlife Refuge*

Muscatatuck NWR was assisted by the Indiana Department of Natural Resources in holding the annual refuge deer hunt. Approximately 2,400 archery and muzzle loading gun hunters were successful in reducing the refuge population by harvesting 70 deer. Partners include: Indiana Department of Natural Resources. 1/3/99

### **Service Attends Local Metro Park Waterfowl Program**

*Reynoldsburg Field Office*

The proposed Darby Prairie NWR was highlighted in conjunction with a waterfowl display at the annual waterfowl event sponsored by the Columbus Metro park District. Information about the proposed refuge was

disseminated. An estimated 140 people attended the Sunday event. 1/4/99

### **River Otters Released at Jefferson Proving Ground**

*Muscatatuck National Wildlife Refuge- Jefferson Proving Ground*

The staff at Jefferson Proving Ground (JPG) assisted Indiana Department of Natural Resources, Division of Wildlife personnel in the release of six additional river otters at JPG on Jan. 31. A total of four males and two females were released to supplement an earlier release at JPG; 25 river otters were first returned to the faunal community of JPG in January 1996. Biologists with the Division of Wildlife have released 303 otters into Indiana watersheds since the program began in 1995. Division of Wildlife biologists picked up the otters in Louisiana and transported them to Purdue University where they received vaccinations and physical exams. During the exam, one of the female otters was confirmed to be pregnant. Since the first otter release, otters have been sighted at several locations on JPG. 1/31/99

### **Empowerment Zone Designation in Southern Illinois**

*Cypress Creek National Wildlife Refuge*

The Southernmost Illinois Delta was one of five selected from 165 applicants as an Empowerment Zone. Refuge staff are part of the assembled

coalition. Cache River is in the heart of the zone and represents tourism potential for the area. This may provide sources of funding for a wide range of public use facilities and services. Partners include: Illinois Department of Natural Resources, Southernmost Illinois Tourism, Pulaski/Alexander Counties 1/13/99

### **Refuge Staff Visit the "Other Cache River"**

*Cypress Creek National Wildlife Refuge*

Cypress Creek Refuge manages lands along the Cache River in southern Illinois. Staff met with White River NWR and Cache River NWR staff over a two day period. Information was shared with management, maintenance, realty and administrative staff. It was a valuable trip for staff to share information on reforestation and wetland management.

1/20/99

### **Migratory Birds and Endangered Species Gain Ground Through Diverse Partnership**

*Patoka River National Wildlife Refuge&MA*

On January 27, 1999, after two years of coordination with a diverse group of Partners of the Southwest Indiana 4 Rivers Project Committee of the North American Waterfowl Management Plan, the U.S. Fish and Wildlife Service received title to 463.2 acres of prior converted wetlands in the Wabash River Bottoms of western Gibson County, Indiana. Acquisition and restoration funds all came

from grants, easement programs and private donations. 1/27/99

### **Muscatatuck Restle Unit Study Conducted**

*Muscatatuck National Wildlife Refuge*

Muscatatuck NWR and three Indiana University students summarized all Restle Unit data and conducted a wetland delineation and wildlife project this fall. The report completed in January 1999, summarized the historical knowledge, wetland delineation, and wildlife records for the unit. Eighty-one bird species (including seven state-threatened species), eight herptofauna, and six mammal species were confirmed using the unit by this report.

Management recommendations were made by the students as part of the requirement of the approved research proposal.

2/1/99

### **Warbler Nests Monitored at Muscatatuck NWR**

*Muscatatuck National Wildlife Refuge*

Muscatatuck NWR received preliminary reports on 1998 research projects being done by Indiana University students on Prothonotary Warblers behavioral patterns. Fifteen nests were monitored that fledged 54 Prothonotary Warblers and two brown headed cowbirds. As part of an extensive study of avian habitat relationships in bottomland forests in Southern Indiana, University students conducted fixed radius circular plot point counts at 11 census points in June on the refuge.

Most abundant birds in 1998 were Prothonotary Warbler, Northern Cardinal, Blue-gray gnat catcher, red-eyed Vireo, red-bellied woodpecker, and eastern wood-pewee. Another field season is scheduled for 1999. 2/17/99

### **Muscatatuck NWR Recognizes Job Corp Wetland Restoration**

*Muscatatuck National Wildlife Refuge*

Muscatatuck NWR held an award ceremony and presented a plaque to the Atterbury Job Corp students for their successful completion of the 12-acre Endicott Marsh restoration project. Forty people including Job Corp students and administrators, Green Thumb participants, Natural Resources Conservation Service, and Muscatatuck NWR staff attended. This restoration provided 2,400 hours of real, on-the-job, training to the students and enabled the refuge to complete a needed restoration. Refreshments and a tour of the refuge were provided. Partners: Atterbury Job Corp, Natural Resources Conservation Service, Green Thumb. 2/17/99

### **Muscatatuck NWR Finds Increased Population of Rare Orchid**

*Muscatatuck National Wildlife Refuge*

Muscatatuck NWR volunteer botanist Lowry summarized all existing data from the Muscatatuck Seep Spring-Research Natural Area (MSS-RNA) and added his 1998 field season results on the state

listed Southern Tubercled Orchid as well as other plants. An increase in the two known populations of this rare orchid has been documented and 21 new species of plants were documented in the MSS-RNA. 2/18/99

### **Quail Unlimited Holds Workday at Muscatatuck NWR Upland Restoration Area**

*Muscatatuck National Wildlife Refuge*

Muscatatuck NWR was the site of a Muscatatuck Quail Unlimited work-day on February 20, 1999. Six people worked a total of 41 hours on the 40 acre upland habitat restoration area. This area has been managed in partnership with the refuge since 1995. 2/20/99

### **Muscatatuck NWR Repairs Auto Tour Route**

*Muscatatuck National Wildlife Refuge*

Muscatatuck NWR maintenance replaced a broken 24 inch culvert on the Auto Tour route to allow for safer public use on February 24, 1999. Partners: Green Thumb. 2/24/99

### **Darby Partners Meet and Hear from Refuge Opposition** *Reynoldsburg Field Office*

The Darby Partners met to discuss several issues, but primarily the TOLUC Rule, and also heard from the organized opposition to the proposed Darby Prairie NWR. Service staff provided an update about the refuge and answered questions. Over 100

people were in attendance. Normally, only 30-35 representatives attend the meetings. 2/24/99

### **Service Briefs Local Wheaton Club About Darby Refuge**

*Reynoldsburg Field Office*

Bill Hegge of the Reynoldsburg Field Office made a presentation to 30 members of the local Wheaton Club about the proposed Darby Prairie NWR. This organization is supportive of the Service's proposal. 2/24/99

### **Muscatatuck River Basin in WRP Acreage Increases**

*Muscatatuck National Wildlife Refuge*

Muscatatuck NWR continues to work off the refuge to encourage Wetland Reserve Program (WRP) and Partners for Fish and Wildlife Programs. In February, one WRP site of 57 acres was field checked, four previously checked WRP sites received tentative funding from the Natural Resources Conservation Service (604 acres), and one potential Partners for Fish and Wildlife Program site was field checked. Partners: Natural Resources Conservation Service 2/25/99

### **Annual Report Documents Region's Accomplishments, Lists Goals**

*External Affairs*

The first comprehensive collection of activities, accomplishments and goals of Region 3 programs and ecosystem teams was published in February 1999, after months of work by External Affairs staff and volunteers. The Region 3 Fiscal Year 1998 Annual Report contains

more than 1,300 reports filed via the Accomplishment Reporting System during the fiscal year by staff from ecological services and law enforcement field offices, national wildlife refuges/wetland management districts and other Service programs. The 380-page report was published electronically in portable document format (.pdf) and is available for download on the Region 3 Web site: (<http://midwest.fws.gov>) . The Report also contains a 94-page Executive Summary that summarizes the year's accomplishments and Fiscal Year 1999 goals for each Region 3 program and ecosystem team. 2/25/99

### **Muscatatuck NWR Volunteers Conduct Outreach** *Muscatatuck National Wildlife Refuge*

Muscatatuck NWR volunteers manned booths and showed Service exhibits/materials at the Hoosier Association of Science Teachers and Indiana Ducks Unlimited Conference in February. Approximately 2,500 people were exposed with the Service and refuge system message. 3/2/99

### **Service Exhibits at Indiana Wildlife Society Meeting** *Muscatatuck National Wildlife Refuge*

Service staff took exhibits on the National Wildlife Refuge System and the trumpeter swan reintroduction program to the Indiana Wildlife Society Meeting where the exhibits were viewed by several hundred people. 3/2/99

### **Prescribed Burn at Muscatatuck NWR**

#### *Muscatatuck National Wildlife Refuge*

Prescribed burns at Muscatatuck NWR, totaling 641 acres, were accomplished during March and April for purposes of shrub control and grassland habitat improvement. 3/30/99

### **Refuge Receives Award from Illinois DNR Eco Watch Program**

#### *Cypress Creek National Wildlife Refuge*

Cypress Creek Refuge staff and volunteers have participated in the Illinois EcoWatch Network since 1995. The network is made up of individuals and organizations trained to conduct scientific monitoring of rivers, forests, prairies and wetlands. The Refuge works specifically with RiverWatch and ForestWatch in the Cache River Watershed. Long-term monitoring data achieved by this program will be applied to reforestation and wetland restoration efforts implemented by the refuge and other Joint Venture Partners. Wetland Watch will be implemented next year in the Cache River watershed. 3/6/99

### **Indiana Bear Hunters Investigated in Canada**

#### *Indianapolis Law Enforcement*

During the week of March 15, 1999, SA Harris coordinated interviews of four Indiana residents in response to an investigative lead from Environment Canada Investigators regarding the unlawful take of a trophy black bear in Ontario. The four

Indiana hunters only had hunting licenses to hunt bear in Manitoba. Investigation is continuing into the unlawful import of bear meat into the United States. Assisting SA's Spoon and Jackson also conducted interviews in Wisconsin, while Canadian Investigators conducted interviews in Ontario. Additional assistance was provided by Indiana Conservation Officers. 3/19/99

### **Junior Duck Stamp Contest at Muscatatuck NWR**

#### *Muscatatuck National Wildlife Refuge*

Muscatatuck NWR volunteers ran the Indiana Junior Duck Stamp contest again this year. At the event, approximately 300 youngsters learned more about waterfowl and conservation through art. The Cinergy Corporation contributed funding for the program and the Muscatatuck Wildlife Society provided labor to handle the entries. 3/20/99

### **Two Men Fined for Shooting at Bald Eagles**

#### *Indianapolis Law Enforcement*

Two Kentucky men recently agreed to pay \$1,000 each, on Federal charges for shooting at and disturbing a bald eagle in Switzerland County, Indiana, last year. The incident was witnessed by local residents, who later provided information to Indiana Conservation Officers. The investigation was conducted by Indiana conservation officers who referred the matter for Federal prosecution to SA Harris. State charges are pending. Shortly after the time

of the shooting incident, someone reported finding an injured bald eagle near the same location. The bird died soon after it was recovered by a conservation officer. Laboratory analysis, conducted at the National Fish and Wildlife Forensic Laboratory, showed that the bird had not been shot by the defendants, however, as result of the statements provided by the witnesses, evidence gathered at the scene, and statements given during interviews, the subjects were charged accordingly. Partners: Indiana Department of Natural Resources (DNR) - Law Enforcement, Kentucky Fish and Wildlife - Law Enforcement, Louisville Law Enforcement, and U.S. Attorney's Office - Indianapolis. 3/22/99

### **Muscatatuck NWR Hosts Junior Duck Stamp Awards Ceremony**

#### *Muscatatuck National Wildlife Refuge*

Muscatatuck NWR hosted an awards ceremony for winners of the Indiana Junior Duck Stamp contest on April 24, 1999. Approximately 55 people learned more about national wildlife refuges and the Service during the program. Partners include: Cinergy Corporation; Muscatatuck Wildlife Society; Indiana Chapter of Ducks Unlimited; Indiana DNR.

4/24/99



### **Muscatatuck NWR Celebrates Earth Day/Arbor Day**

#### *Muscatatuck National Wildlife Refuge*

Muscatatuck NWR provided help with Earth Day/Arbor Day Programs at William H. English Middle School 6th grade (250 students) and Vienna Finley Elementary School (300 students) on April 22. Along with the program, each student received a tree seedling for planting at home. 4/30/99

### **Muscatatuck NWR Increases Grasslands, Encourages Wetland Restorations**

#### *Muscatatuck National Wildlife Refuge*

Muscatatuck NWR planted eight of farm ground to prairie grass thanks to the volunteer work of Muscatatuck Quail Unlimited. Refuge staff continues to work off the refuge to encourage Wetland Reserve Programs and Partners for Fish and Wildlife Programs. In April three WRP sites were field checked totaling 243 acres, two potential PFF&W sites were field checked. 4/30/99

### **Muscatatuck NWR Hosts Junior Duck Stamp Awards Ceremony**

#### *Muscatatuck National Wildlife Refuge*

Teachers, parents, and students learned more about national wildlife refuges and the Service by attending the Indiana Junior Duck Stamp awards ceremony. Muscatatuck NWR hosted an awards ceremony for winners of the Indiana Junior Duck

Stamp contest on April 24, 1999. Approximately 55 people learned more about national wildlife refuges and the Service by attending the Program. Partners include: Cinergy; Muscatatuck Wildlife Society; Indiana Chapter of Ducks Unlimited; Indiana DNR 4/30/99

### **5K Run/Walk Held at Muscatatuck NWR**

#### *Muscatatuck National Wildlife Refuge*

Muscatatuck NWR was the site for a 5K run/walk sponsored by the local Seymour High School Marching Owls Band. Inclement weather reduced the expected number of participants to just over 50, including Congressman, Baron Hill, of Seymour, Indiana. Partners include: Seymour High School and Columbus Hospital Wellness Center. 4/30/99

### **Muscatatuck NWR Celebrates Earth Day/Arbor Day**

#### *Muscatatuck National Wildlife Refuge*

Muscatatuck NWR provided help with Earth Day/Arbor Day Programs at William H. English Middle School 6<sup>th</sup> grade (250) students and Vienna Finley Elementary School (300) students. Along with the Program, each student received a tree seedling for planting at home. Partners include: William H. English Middle School Teachers and Vienna Finley Elementary School Teachers. 4/30/99

### **Muscatatuck NWR Hosts Field Day for Biology Students**

#### *Muscatatuck National Wildlife Refuge*

100 high school students learned about rare copperbelly water snakes, wetlands, and national wildlife refuges during a field day at Muscatatuck NWR May 4, 1999. The students also donated approximately 90 hours of time, assisting with Refuge trail maintenance. Partners include: Refuge volunteers; Purdue University Extension-Jackson County, Ind. 5/4/99

### **Muscatatuck NWR Hosts "May Day" Bird Count**

#### *Muscatatuck National Wildlife Refuge*

Eight Refuge volunteers celebrated International Migratory Bird Day by finding 127 species of birds during the "May Day" bird count May 8, 1999. Refuge staff learned more about the status of bird species on the Refuge because of the count. 5/8/99

### **Gibson County Farm Days - 4th Graders Learn About Streams**

#### *Patoka River National Wildlife Refuge*

Refuge volunteer Tom Mosley represented Patoka River National Wildlife Refuge at the Gibson County Soil and Water Conservation District's 1999 Farm Day. Mosley demonstrated stream characteristics and the damaging impacts of channelization and stream side vegetation removal to over 300 students and teachers. A stream table with running

water provided an active, hands-on demonstration of the affects of erosion, sedimentation and the need for riparian cover. Partners include: Gibson County Soil and Water Conservation District.

5/10/99

### **Region 3 Congressional Briefings**

#### *External Affairs*

Representatives from Region 3 briefed House and Senate authorizing committee staff and the Region 3 Congressional delegations on the Director's priorities and how the Region is implementing those as well as high profile issues such as the Canada lynx proposed listing, bald eagle and timber wolf proposed delistings, prairie habitat restoration, invasive species, and Great Lakes issues. Group briefings for the House and Senate were held on May 18, 1999. The group briefings were followed by courtesy visits to the 29 authorizing committee staff and the staff of the 114 member Region 3 Congressional delegation. The Congressional briefing representatives from Region 3 included: Jane West (Intergovernmental Affairs Specialist for Region 3), Brad Johnson (Assistant Regional Director for Federal Aid), John Rogner (Field Supervisor for the Chicago Ecological Services Field Office), Lee Herzberger (Muscatatuck NWR Refuge Manager), Nancy Gilbertson (Neal Smith NWR Refuge Manager), Doug Spencer (Shiawassee NWR Refuge Manager), Mike Murphy (Hamden Slough NWR Refuge

Manager), Gerald Clawson (Mingo NWR), Larry Martin (Ottawa NWR Refuge Manager), Tom Busiahn (Project Leader for the Ashland Fishery Resource Office), and Dave Pederson (Federal Aid Fishery Biologist). 5/18/99

### **Trumpeter Swan Returns to Refuge**

#### *Muscatatuck National Wildlife Refuge*

One of four trumpeter swans which wintered at Muscatatuck NWR in a project designed to establish an Eastern migratory flock was confirmed to have returned to the Ontario training site. It is a good indication that the migration route can be taught. 5/30/99

### **Muscatatuck NWR Works With Local Industry**

#### *Muscatatuck National Wildlife Refuge*

Muscatatuck NWR ROS Knowles is a member of the ISO-14000 (Environmental Management Systems) stakeholder group formed by Kobelco Metal Powder of America, Inc. This group first met on 5/10/99 for an overview of the pilot grant Kobelco received to implement ISO-14000 from IDEM (Indiana Department of Environmental Management). Areas key to the stakeholders group are environmental impacts and aspects which are significant and to develop objectives and targets to be implemented. Other members of the group include local industry, a local farmer, city fire chief, city wastewater treatment coordinator, and consulting environmental firms. 5/30/99

### **Muscatatuck NWR Hosts "May Day" Bird Count**

#### *Muscatatuck National Wildlife Refuge*

Muscatatuck NWR learned more about the status of bird species on the refuge through the field work of volunteers on the "May Day" bird count. Eight Muscatatuck NWR volunteers celebrated International Migratory Bird Day by finding 127 species of birds on the "May Day" bird count. 5/30/99

### **Muscatatuck NWR Hosts Field Day for Biology Students**

#### *Muscatatuck National Wildlife Refuge*

Approximately 100 high school students helped track copperbelly water snakes and learned about wetlands, map reading, and national wildlife refuges during a field day on Muscatatuck NWR May 4, 1999. The students also donated approximately 90 hours of time to trail maintenance. 5/30/99

### **More than 500 Help Muscatatuck NWR Celebrate National Fishing Week**

#### *Muscatatuck National Wildlife Refuge*

Over 500 people including youth groups and inner-city youngsters participated in a high-quality fishing experience and special events at Muscatatuck NWR's "Take a Kid Fishing Day" June 5. The Muscatatuck Wildlife Society, the refuge non-profit support group, ran the event. Partners include: Muscatatuck Wildlife Society; Indiana Department of Natural Resources;

Indianapolis Fly Casters and Boy Scout Troop 518. 6/5/99

### **New Fishery Biologists Increase Reach of Carterville Fishery Resources Office**

*Carterville Fishery Resources Office*

The Carterville Fishery Resources Office strengthened its staff by adding two new fishery biologists in Fiscal Year 1999. Chad Stinson, a one-year term employee, joined the staff March 21, 1999. Greg Conover, a permanent employee, joined the staff June 6. The addition of two fishery biologists improves the office's capability to actively manage the region's aquatic resources. Chad Stinson is working on a biological assessment of the Kankakee River drainage, a pallid sturgeon survey on the lower Ohio River, and SIKES Act fishery management activities. Greg Conover manages the MICRA National Paddlefish Database and Coded-Wire Tag Processing Center, conducts inspections for the Service's Triploid Grasscarp Inspection/Certification Program, and conducts fishery management activities on waters owned by the Department of Defense. 6/6/99

### **Carterville FRO Supports DoD's Natural Resources Management Program**

*Carterville Fishery Resources Office*

During Fiscal Year 1999, Carterville Fishery Resources Office (FRO) conducted fish/fauna population surveys of Lake Greenwood, on the U.S. Navy's Crane Weapons Support Center in Indiana. Service

staff from Carterville FRO have assisted the Navy's with its natural resources management program at the center for the past 10 years. Fish management at the Center is a cooperative effort between Crane, the Service, and the State of Indiana. This activity is authorized by a cooperative agreement between the Department of Defense and the Service, and is funded under a reimbursable agreement with Crane Naval Weapons Support Center. Recommendations are based on the results of annual spring surveys of the lakes fish fauna. Recommendations in Fiscal Year 1999 include placement of artificial fish shelters and stocking walleye fingerling. Partners include: Indiana Department of Natural Resources. 6/8/99

### **Muscatatuck NWR Completes Boundary Line Fence**

*Muscatatuck National Wildlife Refuge*

Refuge maintenance staff, with help from the Service's Bloomington Field Office, completed boundary line fence work at the Restle unit on June 28, 1999. The fences help keep neighboring cattle out of the Refuge unit. 6/28/99

### **Hardwoods Planted on Former Farm Land**

*Muscatatuck National Wildlife Refuge*

Twenty six acres of Muscatatuck NWR were removed from agricultural program and planted with hardwood seedlings to reduce forest fragmentation. The project included 8,700 seedlings and was administered

jointly with Ducks Unlimited. The project was funded by Cinergy in exchange for carbon credits. 6/30/99

### **Muscatatuck YACC Building Rehabilitated**

*Muscatatuck National Wildlife Refuge*

Green Thumb Muscatatuck maintenance and Green Thumb replace YACC building roof and siding as part of MMS funded projects. This building is used to support the refuge maintenance Program and stores a variety of equipment and supplies. 6/30/99

### **Muscatatuck Restores Wetland in Scott County**

*Muscatatuck National Wildlife Refuge*

In May, one potential WRP site of 140 acres was field checked in Jennings county, one restoration, funded by Partners for Fish and Wildlife, was completed in Scott County (the Minor wetland of 1 acre). 6/30/99

### **Muscatatuck NWR Celebrates National Fishing Week**

*Muscatatuck National Wildlife Refuge*

Over 500 people including youth groups and inner-city youngsters participated in a high-quality fishing experience and special events at Muscatatuck National Wildlife Refuge's "Take a Kid Fishing Day" June 5, 1999. The Muscatatuck Wildlife Society, the refuge non-profit support group, ran the event. Partners include: Muscatatuck Wildlife Society; Indiana DNR;

Indianapolis Fly Casters; Boy Scout Troop #518. 6/30/99

### **Volunteers Recognized at Muscatatuck NWR**

*Muscatatuck National Wildlife Refuge*

Muscatatuck NWR recognized volunteers at the annual volunteer picnic June 12, 1999. Approximately 30 volunteers attended. The "Volunteer of the Year" award went to the refuge (volunteer) bookstore manager who has logged over 3,000 hours of time at Muscatatuck since 1995. 6/30/99

### **Hunter Convicted of U.S., Canadian Wildlife Violations Indianapolis Law Enforcement**

An Indiana black bear hunter was fined \$3,000 plus court costs in a Canadian provincial court and forfeited a full mounted black bear, valued at \$2,000, for violations of the federal Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act (WAPPRIITA).

Robert Craig Sibbitt of Green Castle, Ind., pled guilty to one count of transporting parts from an illegally taken black bear from Ontario to Manitoba, and one count of exporting black bear parts to the United States without proper permits. The conviction stemmed from a May 1998, hunting and fishing trip in Northwestern Ontario by Sibbitt and three other U.S. residents where they hunted and fished without licenses. After illegally killing a black bear, Sibbitt transported parts of the black bear into Manitoba and then into the United

States, a violation of both WAPPRIITA and Lacey Act. The subsequent investigation involved wildlife officers from Environment Canada, the Manitoba Department of Natural Resources, the Service, and the Indiana Department of Natural Resources. Three search warrants led to the seizure of a fully mounted 400 pound black bear and a trophy black bear skull, which would have ranked as Ontario's third largest in 1998. The investigation into the illegal hunting continues.

WAPPRIITA (similar to the U.S. Lacey Act) which was passed by the federal government in 1996, provides Canadian wildlife officers with a new enforcement tool to pursue poachers who transport the parts or derivatives from illegally taken wildlife from one province to another or export these items into another country. Maximum penalties under WAPPRIITA are \$150,000 and/or up to 6 months in jail for individuals, and \$300,000 and/or up to 5 years in jail for corporations. This investigation is a good example of the close working relationship which has been fostered between the U.S. and Canada. 6/30/99.

### **Bald Eagle Delisting Proposal Announced At White House**

*External Affairs*

The President of the United States announced the Service's proposal to delist the Bald Eagle in the year 2000, barring any new information that would alter the proposal. The event was held on the White

House South Lawn, and attended by approximately 150 invited guests. Secretary Bruce Babbitt and a young leader from the Anacostia Conservation Corps preceded the President's speech; Recovery Coordinator Jody Millar was also on stage. A live eagle from the Foundation to Protect America's Eagles and an American flag provided the backdrop. Media interviews were conducted both before and after the event, in Washington and on the South Lawn. Many key players in the bald eagle's recovery were present, including the Service's Recovery Team members from throughout the country. Partners include: Foundation to Protect America's Eagles, The Raptor Center at the University of Minnesota, university researchers, rehabilitation sites. 7/2/99

### **Muscatatuck NWR Canada Goose Banding**

*Muscatatuck National Wildlife Refuge*

Refuge Staff together with staff from the Indiana Department of Natural Resources and Ducks Unlimited banded 35 Canada geese at Muscatatuck National Wildlife Refuge in July 1999. 7/3/99

### **Accomplishment Reporting System Enters Beta Test Period**

*External Affairs*

External Affairs staff began Beta testing of the Phase III Upgrade to the Region's Accomplishment Reporting System July 20, 1999. Testing of the reporting systems numerous features follows months of



development by External Affairs and the developer, Minnesota Computer Programming, Inc., Testing of should be completed by July 30. The system's improvements include key word search capabilities, report archiving and an improved fax-email capability. The Accomplishment reporting system is an internet-based information gathering and dissemination system that allows Service field organizations to report initiatives and accomplishments. Noteworthy accomplishments are then shared with members of Congress, the news media and Service employees. Following testing at Region 3, the improved ARS will be made available to all Service Regions in the United States. Training for new Regional system managers is scheduled for late August. Partners include: Minnesota Computer Programming, Inc. 7/20/99

#### **Demonstration Project Caps Contaminated Sediment with AquaBlok**

*Reynoldsburg Field Office*

The U.S. Army Corps of Engineers Buffalo District has issued a permit to the City of Toledo, Ohio, to conduct a demonstration project involving the encapsulation of PCB contaminated sediments in the Ottawa River, a tributary of Lake Erie. Three separate one-acre areas will be covered with "AquaBlok," a combination of bentonite clay, polymers and a solid nucleus. The AquaBlok particles expand on contact with water to form a coating over the sediments. Each of the three adjacent,

one-acre areas will be covered with approximately 183 tons of AquaBlok in slightly different layering. Area A will be covered only with AquaBlok. Area B will be constructed of two layer of AquaBlok separated by a single geotextile layer. Area C will be constructed similar to B, but with an additional layer of protective stone on top. The cap will be about five to six inches in areas A and B and seven to eight inches in area C. A five-year monitoring plan has been developed. The cap will be monitored for physical integrity. Ohio EPA staff will conduct pre and post project macro-invertebrate sampling. 7/20/99

#### **Muscatatuck NWR Reviews ORVE Cave/Karst Project** *Muscatatuck National Wildlife Refuge*

Staff from Muscatatuck NWR met with members of The Nature Conservancy and U.S. Geological Survey (USGS) July 27, 1999, to review the Ohio River Valley Ecosystem Team's Indiana Cave/Karst project and coordinate plans for the future. USGS will do research while The Nature Conservancy will help coordinate matching funds for the project. The Service will continue to move the project forward to help protect the largest, most biological diverse cave system in Indiana. The Service will also continue to develop partnerships in the local community to encourage best land management practices. 7/22/99

#### **Muscatatuck NWR Experiments With Boat to Control Aquatic Vegetation** *Muscatatuck National Wildlife Refuge*

In an effort to improve control of vegetation and improve recreational fishing on the Refuge, staff at Muscatatuck NWR experimented with a vegetation cutter boat to improve fishing at the Stanfield Lake pier. The boat, which cuts aquatic vegetation, was borrowed from Indiana Department of Natural Resources at Hardy Lake. It is hoped that the boat will help control the heavy pondweed problems at Stanfield Lake. Partners include: Indiana Department of Natural Resources. 7/22/99

#### **Muscatatuck Staff Surveys Henslow's Sparrows at Jefferson Proving Ground** *Muscatatuck National Wildlife Refuge*

By using roadside counts, staff from Muscatatuck NWR surveyed Henslow's Sparrows throughout available habitat at Jefferson Proving Ground in southern Indiana. Initial results in 1999 indicated that there were approximately 1,000 singing males (pairs) on Jefferson Proving Ground. The breeding population of Henslow's Sparrows has been stable during the last five years of Service surveys at Jefferson Proving Ground. Partners include: U.S. Army, Chipper Woods Bird Observatory. 7/30/99

### **Congressional Contacts and Tours Update Lawmakers on Region's Activities**

#### *External Affairs*

During the first eight months of Fiscal Year 1999 more than 500 congressional contacts were made with an average of 64 contacts per month. Congressional tours were provided in every state of the Region, new congressional members were welcomed, and Capitol Hill briefings were provided to the 114 congressional members' staff and 29 subcommittee staff. Congressional briefing books were developed for each of the states in the Region and the briefing books are now being used as the national prototype. The Region's internal congressional knowledge was emphasized and an intranet site was developed containing congressional office contact information that links to the congressional member's home page. 8/1/99

### **Muscatatuck NWR Replaces Culverts for Public Safety**

#### *Muscatatuck National Wildlife Refuge*

Muscatatuck NWR maintenance staff replaced culverts on the one-mile road from Myers Cabin to Lake Linda in August 1999. The new culverts aid public safety by enabling two way traffic to pass safely. 8/2/99

### **Muscatatuck NWR Continues Outreach Efforts to Students and Adults**

#### *Muscatatuck National Wildlife Refuge*

Muscatatuck NWR was the site of a wetland tour and orientation for the six volunteer/interns working at Jefferson Proving Ground (JPG) this summer. The tour presented a "big picture" of the Service and Refuge System to the volunteers

and interns who've spent many hours in the field at JPG studying birds and bats. Muscatatuck NWR Refuge staffer Susan Knowles gave a presentation to 20 people from Farm Credit Services who were meeting at the Refuge Visitor Center. The Refuge was the site of a wetland educational field trip for 180 students from Washington Township Schools of Indianapolis July 12, 1999. 8/12/99

### **Mist Net Study of Indiana Bats Completed at Jefferson Proving Ground**

#### *Muscatatuck National Wildlife Refuge*

The staff at the Jefferson Proving Ground office of Muscatatuck National Wildlife Refuge completed their 1999 mist net study of Indiana bats in August 1999. During 40 nights (80 net nights) of trapping, 262 bats representing seven species were captured, including 13 federally-endangered Indiana bats. Radio transmitters were placed on seven female bats to determine maternity roost tree selection. Data on the three roost trees located during the study is being gathered to better understand summer habitat needs of this endangered species. Partial funding for the study was provided by the U.S. Army and the Indiana Department of Natural Resources. 8/13/99

### **Partnership Efforts Lead to Cleanup of Abandoned Oil Wells**

#### *Patoka River National Wildlife Refuge*

Patoka River NWR signed a cooperative agreement with Indiana DNR-Division of Oil and Gas to remove pump jacks from nine abandoned oil wells, two of which were on the Patoka River NWR. Black Beauty Coal Company constructed a temporary road

access and paid \$7,000 for a contractor to remove four 8,000-gallon rusting oil tanks after a leak developed. The Indiana DNR contracted for \$55,000 and supervised the well closures and later removed the temporary access road on private property. Partners include: Indiana DNR-Division of Oil and Gas, Patoka South Fork Watershed Steering Committee, Black Beauty Coal Company and private land owners. 8/16/99

### **Muscatatuck NWR Hosts National Wet Soils Monitoring Group**

#### *Muscatatuck National Wildlife Refuge*

Muscatatuck NWR was the site for the National Wet Soils Monitoring work group field trip August 17, 1999. The group represents 40 scientists from throughout the United States. The group was given a presentation on the Service, the National Wildlife Refuge System and Muscatatuck NWR. They spent the afternoon studying soils in open soil pits at the 10-year soil monitoring project (a partnership study begun in 1991 with Purdue University and National Resources Conservation Service). The work group is the premier collection of experts on interactions between soil hydrology, geomorphology, and stratigraphy of soil landscapes. Partners include: Purdue University and Natural Resources Conservation Service. 8/17/99

### **Muscatatuck NWR Meets with Kobelco Corp.**

#### *Muscatatuck National Wildlife Refuge*

Muscatatuck NWR staff met with the Kobelco Corporation's Stakeholders Committee on August 17, 1999 to discuss environmental aspects of their powdered steel

production. The committee's goal is to continue environmental improvements of the company's operations. 8/17/99

### **Reynoldsburg Biologist Teaches ESA to Forest Service Line Officers**

#### *Reynoldsburg Field Office*

Buddy B. Fazio, endangered species biologist at the Service's Reynoldsburg Field Office, was presented with an appreciation award by the Lewis and Clark Law School of Oregon. Fazio served as Endangered Species Act instructor at two 1999 training sessions held for approximately 100 U.S. Forest Service Line officers from across the United States. Fazio and members of the Lewis and Clark Law School taught Endangered Species Act section 7 consultation, section 4 listing and recovery, and pre-listing (candidate) conservation. The course ensures that U.S. Forest Service decision makers are familiar with requirements of and processes under the Endangered Species Act. This means the needs of endangered species will be better addressed on national forest lands. Partners include: Lewis and Clark Law School of Oregon, U.S. Forest Service, Cincinnati Nature Center and Ohio Biological Survey (bats). 8/20/99

### **Ohio Partners Study Endangered Indiana Bat's Use of Forest Habitat**

#### *Reynoldsburg Field Office*

The Service's Reynoldsburg Field Office is working with the Ohio Division of Wildlife and U.S. Forest Service to study how the federally-endangered Indiana bat uses habitat on forested land in Ohio. During 1999 and 2000, male and female Indiana bats are being outfitted with radio transmitters allow biologists to

follow the bats. This allows biologists to examine which parts of the U.S. Forest Service's Wayne National Forest in Ohio are used by the bats for roosting, raising young, and winter hibernation. The study will help biologists learn how best to manage national forests for both Indiana bats and wood production. Increased knowledgeable management of national forest land for Indiana bats will help avoid and minimize future impacts to the bats and help with overall Indiana bat recovery. Partners include: U.S. Forest Service, Ohio Division of Wildlife and Eastern Kentucky University. 8/20/99

### **Service, State and City Help Protect Threatened Orchids**

#### *Reynoldsburg Field Office*

To conserve federally-threatened eastern prairie fringed orchids, the city of Dayton, Ohio, continues to work with the Service's Reynoldsburg Field Office and the Ohio Division of Natural Areas and Preserves. Ohio's second largest eastern prairie fringed orchid population occurs on a proposed high-volume water well pump field owned by the city of Dayton. The city built a conservation fence on the perimeter of their land to help protect the orchids. The city is also exploring different on-site water management regimes in an effort to identify which regimes will benefit the orchids. Partners include: Ohio Division of Natural Areas and Preserve and City of Dayton, Ohio. 8/20/99

### **Ohio Coastal Zone Management and Endangered Species**

#### *Reynoldsburg Field Office*

The Service's Reynoldsburg Field Office is working to ensure that Ohio's Coastal Zone Management Program continues to include the

needs of federally threatened and endangered species. A Memorandum of Understanding was finalized two years ago that identifies steps and actions to address federally threatened and endangered species issues pertinent to Ohio's Coastal Zone Management Program. Subsequent informal coordination under the Coastal Zone program has resulted in positive gains for Federally listed species, especially the federally threatened Lake Erie water snake. Partners include: Coastal Zone Management Office, Ohio Division of Real Estate and Land Management, Ohio Department of Natural Resources; National Oceanic and Atmospheric Administration. 8/20/99

### **Refuge Staff Assists Graduate Researchers at Jefferson Proving Ground**

#### *Muscatatuck National Wildlife Refuge*

Two graduate students used Muscatatuck NWR-Jefferson Proving Ground as a study site for their doctoral graduate work with birds. Service staff at helped Siri Ibarguen, a graduate student at Ohio State University, capture nine adult Henslow's sparrows at Jefferson Proving Ground. Ibarguen is working with genetic and trace element markers to track Henslow's sparrows to their wintering sites in the southern United States. Joe Phelps, a graduate student at Purdue University, is doing a similar project with bird dispersal using genetic and trace element markers. Service staff helped Joe with collecting feathers and genetic samples from Eastern Phoebe and Acadian Flycatcher nestlings on Jefferson Proving Ground. These studies are

using the most current scientific techniques to answer basic conservation questions that could provide useful management information. Partners include: U.S. Army, Ohio State University, Purdue University. 8/3/99

### **Triploid Grasscarp Inspection/Certification Program Activities by Carterville FRO**

#### *Carterville Fishery Resources Office*

The Carterville Fishery Resources Office (FRO) participates in the Service's Triploid Grasscarp Inspection/Certification Program, a service offered to natural resource agencies in the United States and other countries, to help state and others protect their natural resources. During Fiscal Year 1999, service inspectors from Cartferville FRO conducted 12 inspection for triploid grasscarp producers in Region 3. In all, 14,392 triploid grass carp were certified for 23 shipments into four states. Two inspections (17 percent) were failed by producers, supporting the need for the Service's involvement in this realm to protect our aquatic resources. The inspection program is to provide assurance to these agencies, and other concerned about protecting aquatic resources, that shipments of grasscarp alleged to be all triploid, do not, within the confidence limits of the inspection program, contain diploids. The Carterville FRO provides inspection service to triploid grasscarp producers within Region 3. The Service's Triploid Grasscarp Inspection/Certification Program protects aquatic resources throughout Region 3 and other countries by preventing the unwanted spread of fertile aquatic nuisance species. Two inspections of triploid grasscarp in Region 3

were failed during Fiscal Year 1999. 8/7/99

### **Reynoldsburg Field Office Helps Manage Forests for Near-Candidates in Ohio**

#### *Reynoldsburg Field Office*

The Reynoldsburg Field Office is working with the U.S. Forest Service's Wayne National Forest to enhance overall species diversity that benefits species which may or recently were close to needing Candidate species status, such as the cerulean warbler. The Wayne National Forest is integrating forest management practices into its Forest Plan which address the needs of both near-candidate species and species with federal threatened or endangered status. A Forest Plan amendment is the tool being used to integrate forest practices beneficial to forest species. Partners include: Wayne National Forest, U.S. Forest Service and U.S. Department of Agriculture. 8/20/99

### **Reynoldsburg Staff Talks to Foresters About Bats and the Endangered Species Act**

#### *Reynoldsburg Field Office*

The Service's Reynoldsburg Field Office led three significant meetings discussing forest management and the federally-endangered Indiana bat during 1999. Participating foresters in the meetings discussed requirements and options under the Endangered Species Act with respect to conserving Indiana bats and their habitat amid forest production practices. The discussions occurred at the Ohio Forest Health Conference in May; a June meeting with the Chief of the Ohio Division of Forestry and a July meeting of the Ohio Chapter of Society of American Foresters. The Reynoldsburg Field Office has

initiated a continuing dialog with Ohio foresters about the Indiana bat. Ohio foresters are responding positively to the Indiana bat dialog and are working with the Service to better understand how forest production practices can incorporate the needs of federally endangered species. The dialog may eventually lead to the adoption of forest practices on public and private land across Ohio which benefit Indiana bats. Partners include: Ohio Division of Forestry, Ohio Woodland Partners Association and the Ohio Chapter of the Society of American Foresters. 8/20/99

### **Muscatatuck Staff Displays Refuge Programs at County, State Fairs**

#### *Muscatatuck National Wildlife Refuge*

Staff from Muscatatuck NWR erected Service displays at the Jackson County, Indiana, Fair on July 25-31, and Indiana State Fair August 9-22, 1999. The displays highlighted the Refuge, Service programs and National Wildlife Refuge System. More than 748,000 people visited the Indiana State Fair this year, many of whom visited Service displays at the Department of Natural Resources building. Partners include: Indiana Department of Natural Resources. 8/22/99

### **Muscatatuck NWR Moist Soil Unit Rehabilitated**

#### *Muscatatuck National Wildlife Refuge*

Muscatatuck NWR's moist soil unit number 7 was mowed for cocklebur control and willows were removed in a rehabilitation effort during August in keeping with the Refuge water management plan. 8/31/99



### **Central American Conservation Personnel Trained Through Partnership for Biodiversity**

#### *External Affairs*

The Partnership for Biodiversity is an initiative aimed at promoting biodiversity conservation in developing countries worldwide through the joint efforts of the U.S. Agency for International Development (USAID), the U.S. Department of the Interior (DOI), and the U.S. Peace Corps. As a representative for DOI, Jane West, Region 3 Intergovernmental Affairs Specialist, provided biological monitoring technical assistance to four globally significant protected areas of high biodiversity in Ecuador, South America. Jane presented a 3-day workshop on biological monitoring in Spanish to 19 park guards representing protected areas, a 1-day session for 9 Ecuadorian technical experts, and a presentation for the U.S. Agency for International Development Office in Quito, Ecuador. The participants obtained hands on experience for monitoring landbirds, as well as an understanding of techniques for monitoring mammals, herptiles, vegetation, and fire. Partners include: U.S. Agency for International Development, U.S. Department of the Interior, U.S. Fish and Wildlife Service, The Nature Conservancy - Ecuador, Ministry of Environment - Ecuador (Ministerio de Medio Ambiente), Ecuadorian National Park Service

(Instituto Ecuatoriano Forestal y de Areas Naturales y Vida Silvestre), Fundacion Antisana, Fundacion Natura, Fundacion Ecologica Rumicocha. 9/13/99

### **Muscatatuck Staff Monitors Bird Productivity in Forest Interior and Grasslands**

#### *Muscatatuck National Wildlife Refuge*

Staff at Muscatatuck NWR/JPG worked in the field six days each week from May to September 1999, monitoring bird nests in mature forest and grasslands. Staff assessed the productivity of birds found in both habitat extremes to better understand the appropriate mixture of these habitats in the local landscape. Nest productivity of Henslow's sparrows, field sparrows, Eastern meadowlarks, common yellowthroats, wood thrushes, acadian flycatchers, ovenbirds, Kentucky warblers, red-eyed vireos, and worm-eating warblers will be used to assess brown-headed cowbird parasitism, predation, and the general health of these bird populations. Over 500 nests of 41 different bird species were monitored during 1999, including 44 Henslow's sparrow nests. Over 800 nests were monitored during 1998 and 1999, and a total of 58 active Henslow's Sparrow nests were monitored during the 2-years of the study, the largest sample of this species ever monitored. Breeding cerulean warblers

were also detected in many of the forested plots used in this monitoring effort. Jefferson Proving Ground has over 200 bird species that utilize its diverse habitats. Partners include: U.S. Army, Chipper Woods Bird Observatory, Indiana Department of Natural Resources, Volunteers. 9/15/99

### **Public and Private Partners Work to Help Endangered Purple Cat's Paw Mussel**

#### *Reynoldsburg Field Office*

The Reynoldsburg Field Office is working with partners from the Ohio Division of Wildlife, Otterbein College, Natural Resources Conservation Service, local officials and landowners to conserve the endangered purple cat's paw pearly mussel. The Service, Ohio Division of Wildlife, and Ohio River Valley Ecosystem subgroup pooled funds and formed a watershed partners group to identify important watershed issues and projects important to recovery of the purple cat's paw mussel. Funds will be used for voluntary improvement of watershed habitat for the purple cat's paw on private land. Public education and mussel population monitoring are also being implemented by the Service and Ohio Division of Wildlife. Other partners include: Ohio Division of Wildlife, Natural Resources Conservation Service, Ohio River Valley Ecosystem Mussel Subgroup, Coshocton County Soil and Water Conservation District and landowners. 9/15/99

### **SCEP Students Band Henslow's Sparrows at Muscatatuck NWR-JPG**

#### *Muscatatuck National Wildlife Refuge*

Teresa Vanosdol-Lewis and Jason Lewis, SCEP students at Muscatatuck NWR-Jefferson Proving Ground, banded 44 nestling Henslow's sparrows during 1999. Nestlings were typically banded when they were five to six days old to prevent early fledging. Standard measurements (i.e., weight, wing chord, erupted primary feather length) were taken to gain information on nestling development. Several concurrent banding/monitoring efforts are occurring on the Henslow's sparrow wintering ground. It is hoped that recaptured banded birds will provide information on wintering sites of the Henslow's sparrow population at JPG and that banded birds observed returning to JPG would provide information on breeding site philopatry. Partners include: U. S. Army, Chipper Woods Observatory. 9/15/99

### **Partnerships Work to Restore Fish and Wildlife to Augusta Lake**

#### *Patoka River National Wildlife Refuge*

With a grant of \$10,000 from the Clean Water Action Plan, the Patoka River NWR signed a cooperative agreement with Indiana Department of Natural Resources-Division of Reclamation to excavate pits and trenches in the abandoned mine spoils around the 55-acre Augusta Lake based on the reclamation expertise of Jack Nawrot from the Southern Illinois University Wildlife Research Department. The pits were filled with calcium hydroxide, a highly

alkaline by-product of acetylene gas production to infiltrate and neutralize the pyritic acid producing sandstone around the lake. Partners include: Patoka South Fork Watershed Steering Committee, Indiana DNR-Divisions of Reclamation, Fish and Wildlife, Office of Surface Mining, Southern Illinois University - Coop Wildlife Research Lab, Four Rivers RC&D, Boy Scouts and Girl Scouts. 9/15/99

### **1999 Erosion Control Project Completed at Muscatatuck NWR/JPG**

#### *Muscatatuck National Wildlife Refuge*

Service staff at the Jefferson Proving Ground, Muscatatuck NWR's equipment operator, Indiana Department of Corrections workers and Indiana Department of Natural Resource-Division of Soil Conservation employees cooperated in a soil erosion control project at Jefferson Proving Ground. The project treated 18 sites along the perimeter of Jefferson Proving Ground that contributed to off-site sedimentation and reduced water quality within the Otter Creek/Muscatatuck River watershed. Control techniques included the placement of 308 tons of riprap revetment and the application of fertilizer, lime and seed to bare, eroding areas totaling 3 acres. Partners include: U.S. Army, Indiana Department of Natural Resources-Division of Soil Conservation, Indiana Department of Corrections 9/22/99

### **Reynoldsburg Biologist Teaches Endangered Species Act to DOT Employees**

#### *Reynoldsburg Field Office*

During Fiscal Year 1999, Buddy Fazio of the Service's Reynoldsburg, Ohio, field office

taught Endangered Species Act section 7 consultation and recovery to more than 400 Ohio Department of Transportation (ODOT) employees who attend quarterly training sessions in Ohio. The employees are engineers, biologists, and decision makers employed by ODOT or its consultants to plan and implement development of transportation projects in Ohio. Emphasis on integrating early planning and coordination for endangered species needs into overall project planning will greatly reduce species/project conflicts in the long-term. Early dialog thus allows time to resolve any conflicting issues that arise, often avoiding impacts to endangered species and facilitating project completion altogether. This means early consultation on Federal candidate, threatened, and endangered species ensures smooth completion of projects while effectively conserving species. 9/27/99

### **Batting a Thousand on the Wayne National Forest of Ohio**

#### *Reynoldsburg Field Office*

The Service's Reynoldsburg Field office is working with the U.S. Forest Service's Wayne National Forest to enhance Indiana bat recovery. Forest management practices beneficial to the Indiana bat are being integrated into the Wayne National Forest Management Plan and other Forest actions. The Indiana bat is being addressed early in the Wayne National Forest's Management Plan amendment process to ensure sufficient protection and recovery for the Indiana bat before, during, and after timber harvest. In a positive move, the Wayne National Forest invited a member of the Reynoldsburg Field Office to work

on an Identification Team which identifies important endangered species management issues and practices on the forest. Partners include: Wayne National Forest, U.S. Forest Service. 9/28/99

### **Landowner Going to Bat for Endangered Indiana Bats**

#### *Reynoldsburg Field Office*

The Reynoldsburg Field Office is working with a private landowner/businessman and the Ohio Division of Wildlife to protect and manage four species of bats in an underground mine, including the Federally endangered Indiana bat. The mine contains approximately 10,000 endangered Indiana bats and 15,000 other bats comprising three other bat species. The landowner allowed the Ohio Division of Wildlife to place large, protective bat gates on each of 12 entrances. The landowner is discussing a variety of other bat conservation options with the Service and the Ohio Division of Wildlife. 9/28/99

### **Endangered American Burying Beetles Return to Ohio!**

#### *Reynoldsburg Field Office*

The Service's Reynoldsburg Field Office is working with agency and university partners to reintroduce the endangered American burying beetle to Ohio. The beetles were collected in Arkansas by the Oklahoma Biological Survey and shipped to Ohio just before release. So far, 70 pair of American burying beetles have been released into a State wildlife area during two subsequent years. Another release event will occur in Ohio during Fiscal Year 2000. Successful establishment of the American burying beetle in Ohio will mean the national recovery objective of establishing the beetle in three of four regions across the U.S. will be achieved. This achievement will lead

to reclassification (upgrading) the status of the beetle from endangered to threatened, an important step closer to eventually removing the beetle from the endangered species list altogether. Partners in the reintroduction effort include the Ohio Division of Wildlife; Ohio State University Entomology Department and the Service's New England Ecological Services field office, Region 5.

9/28/99

### **Ohio City, State Work With Service to Protect Threatened Northern Monkshood Plant**

#### *Reynoldsburg Field Office*

A breakthrough has occurred which better protects the federally-threatened northern monkshood plant in Ohio! The City of Cuyahoga Falls, Ohio, and the Ohio Department of Transportation agreed to modify highway construction to divert destructive road salt outwash away from Ohio's largest population of federally-threatened northern monkshood plants. The Service's Reynoldsburg Field Office and the Ohio Division of Natural Areas and Preserves have worked for six years to achieve this milestone in conservation of northern monkshood plants in Ohio. Diverting road salt outwash on an eight-lane Ohio highway away from Ohio's biggest population of northern monkshood plants is a recovery achievement critical to the continued existence of the monkshood population affected. Diversion of road salt outwash will allow the monkshood population to recover over time to its previous healthy population levels. Partners in the effort include Ohio Division of Natural Areas and Preserves; Summit County Metroparks; Ohio Department of Transportation; City of Cuyahoga Falls, Ohio, and Holden Arboretum. 9/28/99

### **Grassland Restoration Project Completed at Jefferson Proving Ground**

#### *Muscatatuck National Wildlife Refuge*

Service staff at Muscatatuck NWR- Jefferson Proving Ground hand-cleared newly established woody vegetation within a 200-acre area of Jefferson Proving Ground. The hand-clearing combined with the re-introduction of prescribed fire within an additional 7,500-acre area was needed to offset the loss of grasslands following the U.S. Army's cessation of its fire management program in 1994, and subsequent base closure in 1995. These efforts have allowed the current Henslow's sparrow population at Jefferson Proving Ground to remain at approximately 1,000 breeding pairs and benefitted numerous additional bird species that prefer grassland and early successional habitats. 9/30/99

### **Muscatatuck NWR Uses Soybean Oil in Dust Kill Experiment**

#### *Muscatatuck National Wildlife Refuge*

"Dust kill, a soybean oil product that suppresses road dust, was applied to a one-mile section of gravel road on Muscatatuck NWR in an experimental effort to reduce dust in an environmentally friendly manner. Reducing dust created from road traffic allows for greater enjoyment of the refuge by visitors. 9/30/99

### **Muscatatuck NWR Non-Game Point Count**

#### *Muscatatuck National Wildlife Refuge*

Data from the 1999 Non-Game Breeding Bird Survey was analyzed. Sixty non-game bird species were reported, including

several Region 3 Priority Species. The project will provide information useful in management activities on the refuge. 9/30/99

### **Refuge Quail Survey Reveals 15 Birds**

#### *Muscatatuck National Wildlife Refuge*

Muscatatuck NWR's spring 1999 quail whistling count recorded 15 birds versus 11 in 1998. The quail whistling count provides feedback information related to habitat development on the refuge. Partners include: Quail Unlimited 9/30/99

### **Student Volunteers Gain Wealth of Experience at Muscatatuck NWR**

#### *Muscatatuck National Wildlife Refuge*

Six student volunteers participated in a summer intern program at Muscatatuck NWR. Volunteers were provided housing and monthly stipend to enable their participation in management and monitoring activities at both Jefferson Proving Ground and the Refuge from mid-April to early September. All interns participated in the bird productivity study at Jefferson Proving Ground and the Nongame Breeding Bird Study at Muscatatuck NWR. Piper Roby performed much of the field work on the northern copperbelly watersnake study and the secretive marsh bird survey at Muscatatuck NWR. The interns gained valuable experience in conservation and habitat management while the Service gained a capable field crew during the busy field season. Partners include: U.S. Army, Indiana Department of Natural Resources. 9/30/99

### **Carterville FRO Manages National Paddlefish Database and Coded-Wire Tag Processing Center**

#### *Carterville Fishery Resources Office*

The Mississippi Interstate Cooperative Research Association (MICRA) national paddlefish database and an associated coded-wire tag processing center are managed by the Carterville Fishery Resources Office (FRO). During Fiscal Year 1999, the Center processed 5,370 coded-wire reference tags from wild captured fish and 104 reference tags for 52 stockings of 85,492 hatchery reared fish. Coded-wire tags recovered from 281 recaptured paddlefish were processed and linked to release data in the database. At the end of the fiscal year, the database contains individual records for 1.1 million stocked paddlefish, more than 9,000 wild tagged paddlefish and nearly 1,000 tag recoveries. Long and short distance migrations between state management jurisdictions and between important paddlefish habitats have been documented. Individual data summaries were constructed and distributed to participating states. MICRA is comprised of 28 member state natural resource agencies. Twenty-three states contributed to the MICRA paddlefish database. The national study is designed to assess the population status of paddlefish, formulate estimates of harvest and exploitation, and to describe their movement and migration patterns throughout the Mississippi Basin. The project will continue during Fiscal Year 2000. Partners include: Blind Pony NFH; Carbon Hill NFH; Centerton NFH; Garrison Dam NFH; Gavins Point NFH; Mammoth Spring NFH;

Natchitoches NFH; Neosho NFH; Private John Allen NFH; Tishmingo NFH; Uvalde NFH; Alabama, Arkansas and North Dakota Divisions of Game & Fish; Minnesota, Iowa, Illinois, Indiana, Ohio, Wisconsin and West Virginia Departments of Natural Resources; Kansas Department of Wildlife & Parks; Kentucky Department of Fish & Wildlife, Louisiana Department of Wildlife & Fisheries; Mississippi and Montana Departments of Wildlife, Fish, & Parks; Missouri Department of Conservation; Nebraska Game & Parks Commission; New York Department of Environmental Conservation; Oklahoma Department of Wildlife Conservation; Pennsylvania Fish & Boat Commission; South Dakota Department of Game, Fish, & Parks; Tennessee Wildlife Resources Agency and Texas Parks & Wildlife Department. 9/30/99

### **Carterville FRO - Big Darby Creek Project Retores Habitat**

#### *Carterville Fishery Resources Office*

Representatives of the Ohio Department of Natural Resources (Division of Wildlife and DNAP), the Service, Pickaway County Ohio Soil & Water Conservation Office, and landowner Bill Richards have collaborated in the development of a riparian zone restoration and in-stream habitat improvement project on Big Darby Creek in Pickaway County Ohio. This priority project of the Ohio River Valley Ecosystem Team will leverage Service Clean Water Action Plan Funding to restore habitat in Central Ohio. The project will move approximately 3,000 feet of levee back an average of 300 feet from the banks of the Big Darby Creek, restoring



approximately 20 additional acres of riparian corridor. In addition, in-stream kicker devices would be constructed out of local materials to protect stream banks from erosion. Approximately 135 acres of riparian corridor along nearly two miles of Big Darby - will also be protected by conservation easements (WRP and SWCD) donated by the landowner. The total project will cost approximately \$90,000 with \$55,650 funded by a grant from the Service's Clean Water Action Plan. Partners include: Ohio Department of Natural Resources, Division of Wildlife, Fisheries, Pickaway County Ohio Soil and Water Conservation District, Bill Richards, Private Landowner, Ohio Department of Natural Resources, Division of Natural Areas & Preserves. 9/30/99

**Carterville FRO Assists With Ohio River Mussel Monitoring**  
*Carterville Fishery Resources Office*

During Fiscal Year 1999, Carterville Fishery Resources Office (FRO) supported the Ohio River Island National Wildlife Refuge with equipment and a biologist for surveying mussel beds on the lower Ohio River. This is the third year the Carterville FRO has supported the project. The study examined and monitored the population status, abundance, and interaction of native and zebra mussel populations throughout the Ohio River. By assisting in the surveys, Carterville staff acquire a better understanding of the aquatic environment of the Ohio River, and gain experience through the large-scale mussel study. Biological skills and knowledge obtained enhance the Carterville staffs ability to work within large river ecosystems. 9/30/99

**Volunteer Program Benefits Students and Service Work Carterville FRO**

*Carterville Fishery Resources Office*

The Carterville Fishery Resource Office (FRO) is participating in a student volunteer program with Southern Illinois University, Carbondale, Ill. The program provides students the opportunity to simultaneously obtain work experience and school credit. Mike Thomas, a SIU biological science graduate, has participated in the program during the summer and fall of 1999, logging more than 560 hours providing valuable technical assistance with reports and sampling. The program benefits both the Service and the students with the Carterville FRO receiving essential help, and Mike acquiring practical work experience. 9/30/99

**Ohio River Ecosystem Team Studies the Importance of Reclaimed Stripmine Lands to Migratory Birds**

*Carterville Fishery Resources Office*

The Ohio River Valley Ecosystem Team (ORVE) Migratory Bird Subgroup funded and initiated a two year study of the productivity of grassland birds on reclaimed surface mine sites in the ORVE. The subgroup again partnered with Indiana State University researchers who have been studying the use of these large anthropogenic grasslands for several years. The MBS reviewed data indicating that these sites indeed provide habitat for a variety of grassland dependent birds including species identified as area sensitive. What is unknown is do these sites, which are structurally similar to but floristically unlike native grasslands, act as a source or

a sink with respect to grassland birds. 9/30/99

**Ohio River Valley Ecosystem Team Zebra Mussel Monitoring Completes Its Fifth Year**

*Carterville Fishery Resources Office*

Submitted by: Patti Morrison, Region 5, Ohio River Islands National Wildlife Refuge  
More than 40 people from five states, numerous volunteers and two federal agencies (pitched in to conduct surveys at 11 sites along the 1,000 mile Ohio River. The river-wide assessment tracked the status of zebra mussels and their impacts on native mussels throughout the river, and rescued endangered mussels that are at-risk. Zebra mussels now inhabit the entire length of the Ohio river, and native mussels are declining in areas--primarily in reaches below Cincinnati, Ohio--since the early 1990s. Zebra mussel populations continue to build in the upper river. Participating partners in the survey include 11 Service field offices: Ohio River Islands NWR, Erie NWR, Muscatatuck NWR, Canaan Valley NWR, White Sulphur Springs NFH, Patoka River NWR, Carterville FRO, Reynoldsburg ES, Bloomington ES, Region 5 Regional Office, and Special Agent for West Virginia; U.S. Geological Survey and U.S. Environmental Protection Agency; Illinois, Indiana, West Virginia and Ohio Departments of Natural Resources and Kentucky Department of Fish and Wildlife. 9/30/99

### **Patoka River National Wildlife Refuge Expands to 3,250 Acres**

*Patoka River National Wildlife Refuge*

The Service purchased eight tracts of land covering 587.3 acres within the boundary of the Patoka River National Wildlife Refuge during Fiscal Year 1999. Four tracts of 360 acres are in final stages of negotiation. Twenty tracts (1,387 acres) have completed appraisals for purchase during Fiscal Year 2000. Partners include: Ducks Unlimited, Four Rivers Resource Conservation and Development Area, and Southwest Indiana Four Rivers Project Committee (NAWMP). 9/30/99

### **\$1 Million Will Help Ohio River Valley Ecosystem Team Save Native Mussels**

*Carterville Fishery Resources Office*

As a result of a settlement with a commercial shell company for alleged violations of federal and state law, the Service and the National Fish and Wildlife Foundation are administering a fund that will provide \$1 million over four years to enhance and protect freshwater mussel resources. This represents a major infusion of money dedicated solely to freshwater mussel research and management needs. Members of the Ohio River Valley Ecosystem Team's Mollusk Sub-Group developed the proposal format and review criteria and established a 10-member review committee. The group also developed a process for soliciting and reviewing proposals. The first

call for proposals went out in September and the first round of funded projects will be announced in December 1999. Approximately \$100,000 to \$150,000 will be awarded this first round. The Ohio Valley Ecosystem Team's Native Mussel Sub-Group is soliciting proposals from a wide variety of potential partners. 9/30/99

### **New Poster Features Ohio River Freshwater Mussels**

*Carterville Fishery Resources Office*

The Mollusk Sub-Group of the Ohio River Valley Ecosystem Team formed a committee last year to develop and produce an educational poster highlighting the mussels of the mainstem Ohio River. The committee is chaired by Wayne Davis of the Kentucky Dept. of Fish and Wildlife Resources, and involves all six states and bordering the Ohio River as well as three federal agencies (USFWS, TVA, USGS). The full-color poster features native mussels of the Ohio River, including federally listed and extinct species, with important conservation information on the back, in black and white text and photos. The Service is a cost sponsor, along with the states and the Mussel Mitigation Trust. The poster is in final design phase now, and should be published by February 2000. Partners include: Resource Management Agencies of Kentucky, West Virginia, Ohio, Illinois, Pennsylvania and Indiana, Tennessee Valley Authority and U.S. Geological Survey. 9/30/99

### **Army Corps of Engineers Explores Region 3's Accomplishment Reporting System**

*External Affairs*

External Affairs staff demonstrated the capabilities of the Region's Accomplishment Reporting System (ARS) for the Army Corps of Engineers September 29. Susan Fournier, a public affairs specialist from the Corps' district office in Cincinnati, Ohio, spent a full day learning about the reporting system's information gathering and dissemination capabilities, and how information gathered via regional accomplishments can be used by employees and leaders as a decision making tool. Fournier was introduced to ARS-based information products, such as Inside Region 3" and the Region's annual report. The Corps learned about the Accomplishment Reporting System through the Midwest Natural Resources Group, an organization of federal resource agencies based in the Midwest. Both the Corps and the Service's Region 3 are members of the group. The Corps of Engineers, like the Service, is challenged to gather timely information about its resource activities from geographically dispersed offices and disseminate it to key decision makers, the media, and the public. As such, the Corps' is examining the ARS for possible use in its public affairs/outreach programs.

9/29/99